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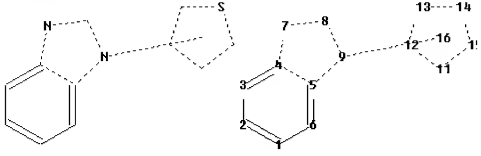


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ring nodes :
1  2  3  4  5  6  7  8  9  11  12  13  14  15
ring bonds :
1-2  1-6  2-3  3-4  4-5  4-7  5-6  5-9  7-8  8-9  11-12  11-15  12-13  13-14  14-15

exact/norm bonds :
4-5  4-7  5-9  7-8  8-9  11-12  11-15  12-13  13-14  14-15
normalized bonds :
1-2  1-6  2-3  3-4  5-6
isolated ring systems :
containing 1 : 11 :


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  11:Atom
12:Atom  13:Atom  14:Atom  15:Atom  16:Atom

L1      STRUCTURE UPLOADED



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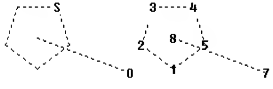


```
chain nodes :
7
ring nodes :
1  2  3  4  5
ring bonds :
1-2  1-5  2-3  3-4  4-5
exact/norm bonds :
1-2  1-5  2-3  3-4  4-5
isolated ring systems :
containing 1 :


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  7:CLASS  8:CLASS
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L2 STRUCTURE UPLOADED

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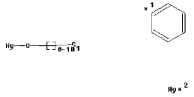


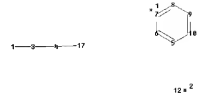


chain nodes :
1 3 4 12 17
ring nodes :
5 6 7 8 9 10
chain bonds :
1-3 3-4 4-17
ring bonds :
5-6 5-10 6-7 7-8 8-9 9-10
exact/norm bonds :
1-3 3-4 4-17
normalized bonds :
5-6 5-10 6-7 7-8 8-9 9-10
isolated ring systems :
containing 5 :

G1:[*1],[*2]

Match level :
1:Atom 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 12:Atom 17:CLASS
Generic attributes :
1:
Saturation : Unsaturated
Number of Carbon Atoms : less than 7
Number of Hetero Atoms : Exactly 1
Type of Ring System : Monocyclic
12:
Saturation : Unsaturated
Number of Carbon Atoms : less than 7
Number of Hetero Atoms : Exactly 1
Type of Ring System : Monocyclic

Element Count :
Node 1: Limited
S,S1
C,C4

Node 12: Limited
N,N1
C,C4

```
L6      STRUCTURE UPLOADED

=> d his

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L1               STRUCTURE UPLOADED
L2               STRUCTURE UPLOADED
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L5           906 S L2 SSS FULL SUB=L4

L6               STRUCTURE UPLOADED
L7           785 S L6 SSS FULL SUB=L5

     FILE 'CAPLUS' ENTERED AT 12:38:54 ON 17 JUL 2008
L8            11 S L7
L9             2 S US200!-522958/APPS
L10            1 S L8 AND L9
L11           10 S L8 NOT L9

     FILE 'REGISTRY' ENTERED AT 12:39:17 ON 17 JUL 2008

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L1 HAS NO ANSWERS
L1               STR
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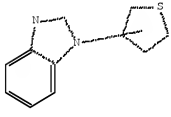


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Structure attributes must be viewed using STN Express query preparation.

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L2 HAS NO ANSWERS
L2               STR
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Structure attributes must be viewed using STN Express query preparation.

=> d l6
L6 HAS NO ANSWERS
L6               STR
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Hy 2

G1 [@1],[@2]

Structure attributes must be viewed using STN Express query preparation.

=> fil caplus

=> d l10 bib abs

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:143141 CAPLUS Full-text

DN 140:199325

TI Preparation of benzimidazolyl substituted thiophenes as Polo like kinases (PLK) inhibitors for treating cancer

IN Andrews, Clarence W., III; Cheung, Mui; Davis-Ward, Ronda G.; Drewry, David Harold; Emmitte, Kyle Allen; Hubbard, Robert Dale; Kuntz, Kevin W.; Linn, James Andrew; Mook, Robert Anthony; Smith, Gary Keith; Veal, James Marvin

PA Smithkline Beecham Corporation, USA

SO PCT Int. Appl., 235 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2004014899 | A1 | 20040219 | WO 2003-US24272 | 20030804 |
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| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2493908 | A1 | 20040219 | CA 2003-2493908 | 20030804 |
| | AU 2003265348 | A1 | 20040225 | AU 2003-265348 | 20030804 |
| | AU 2003265348 | B2 | 20070816 | | |
| | EP 1546137 | A1 | 20050629 | EP 2003-784888 | 20030804 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | BR 2003013160 | A | 20050712 | BR 2003-13160 | 20030804 |
| | CN 1688576 | A | 20051026 | CN 2003-823755 | 20030804 |
| | JP 2006505522 | T | 20060216 | JP 2004-527723 | 20030804 |

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| | NZ 538134 | A | 20060331 | NZ 2003-538134 | 20030804 | |
| | RU 2296758 | C2 | 20070410 | RU 2005-102390 | 20030804 | |
| | ZA 2005000864 | A | 20060426 | ZA 2005-864 | 20050128 | |
| | NO 2005000525 | A | 20050506 | NO 2005-525 | 20050131 | |
| | US 20060074119 | A1 | 20060406 | US 2005-522958 | 20050131 | <-- |
| | MX 2005PA01544 | A | 20050419 | MX 2005-PA1544 | 20050208 | |
| | IN 2005KN00321 | A | 20060106 | IN 2005-KN321 | 20050302 | |
| PRAI | US 2002-402008P | P | 20020808 | | | |
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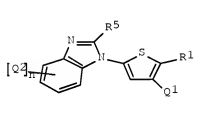
OS MARPAT 140:199325

GI



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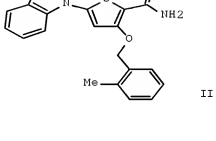

II

AB The title compds. [I; R1 = H, alkyl, COR7, CO2R7, etc.; Q1 = OCH2Ph, NHCH2Ph (both substituted on Ph ring), etc.; n = 0-4; Q2 = OMe, Cl, Br, etc.; R5 = H, halo, alkyl, etc.; R7 = H, alkyl, cycloalkyl, etc.], useful for treating a condition mediated by PLK, were prepared E.g., a multi-step synthesis of II which showed pIC50 of > 7 in assay for inhibition of PLK1, was given. The pharmaceutical composition comprising the title compds. I is claimed.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l11 tot bib abs hitstr

√L11 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2008:705811 CAPLUS Full-text

DN 149:53992

TI Benzimidazolylthiophene derivatives as PLK inhibitors and their preparation, pharmaceutical compositions and use in the treatment of cancer

IN Rheault, Tara Renae; Cheung, Mui; Badiang, Jennifer G. Stanford; Donaldson, Kelly Horne

PA Smithkline Beecham Corporation, USA

SO PCT Int. Appl., 124pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | √APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2008070354 | A2 | 20080612 | WO 2007-US82951 | 20071030 |
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KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM

PRAI US 2006-863662P P √20061031

GI

√L11 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:1420678 CAPLUS Full-text

DN 148:55071

TI Preparation of benzimidazolylthiophene benzyl ether compounds as PLK1 inhibitors

IN Kuntz, Kevin Wayne; Emerson, Holly Kathleen; Cheung, Mui; Badiang, Jennifer Gabriel

PA Smithkline Beecham Corporation, USA

SO PCT Int. Appl., 113pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | √APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2007143506 | A2 | 20071213 | WO 2007-US70108 | 20070531 |
| WO 2007143506 | A3 | 20080306 | | |

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRAI US 2006-810315P P √20060602

√L11 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:1420591 CAPLUS Full-text

DN 148:55070

TI Benzimidazole thiophene compounds and their preparation, pharmaceutical compositions and use in the treatment of diseases

IN Kuntz, Kevin; Emmitte, Kyle Allen; Rheault, Tara Renae; Smith, Stephon; Hornberger, Keith; Dickson, Hamilton; Cheung, Mui

PA Smithkline Beecham Corporation, USA

SO PCT Int. Appl., 303pp.

CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | √APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2007143456 | A2 | 20071213 | WO 2007-US69879 | 20070529 |
| | WO 2007143456 | A3 | 20080214 | | |

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRAI US 2006-810526P P √20060602

√L11 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:819365 CAPLUS Full-text
DN 147:359215
TI Pharmacological and Functional Comparison of the Polo-like Kinase Family: Insight into Inhibitor and Substrate Specificity
AU Johnson, Eric F.; Stewart, Kent D.; Woods, Keith W.; Giranda, Vincent L.; Luo, Yan
CS Cancer Research, Abbott Laboratories, Abbott Park, IL, 60064, USA
SO Biochemistry √ (2007), 46(33), 9551-9563
CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
AB PLK1 (polo-like kinase 1) is a key mitotic kinase and a therapeutic target in the treatment of proliferative diseases. Here we investigate the relative substrate specificity and pharmacol. relatedness of PLK1, -2, -3, and -4 that together comprise a conserved family of Ser/Thr kinases (PLK family). We report consensus substrate sequences for PLK2, -3, and -4 and an expanded consensus sequence for PLK1, which we use to design an optimal peptide substrate, PLKtide. We report inhibitory activity for the entire PLK family across a diverse set of small-mol. ATP-competitive inhibitors including several clin. compds. With respect to both substrate and ATP-site specificity, highest similarity is observed between PLK2 and PLK3, PLK1 is next most similar, and PLK4 is least similar. Further, we have identified and report time-dependent inhibition by two potent and selective PLK inhibitors.

√L11 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:284227 CAPLUS Full-text
DN 146:337892
TI Regioselective process for preparing benzimidazole thiophenes
IN Hornberger, Keith; Cheung, Mui; Pobanz, Mark Andrew; Emmitte, Kyle Allen;

Kuntz, Kevin Wayne; Badiang, Jennifer Gabriel
PA Smithkline Beecham Corporation, USA
SO PCT Int. Appl., 311pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | √APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2007030366 | A1 | 20070315 | WO 2006-US33793 | 20060828 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| | RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | AU 2006287771 | A1 | 20070315 | AU 2006-287771 | 20060828 |
| | CA 2621073 | A1 | 20070315 | CA 2006-2621073 | 20060828 |
| | EP 1924572 | A1 | 20080528 | EP 2006-813938 | 20060828 |
| | R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR | | | | |
| | MX 200803172 | A | 20080318 | MX 2008-3172 | 20080306 |
| | KR 2008045266 | A | 20080522 | KR 2008-708167 | 20080404 |
| PRAI | US 2005-714301P | P | √20050906 | | |
| | WO 2006-US33793 | W | 20060828 | | |

√L11 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:283577 CAPLUS Full-text
DN 146:337898
TI Preparation of benzimidazolyl thiophene derivatives as PLK modulators
IN Cheung, Mui; Badiang, Jennifer Gabriel; Donaldson, Kelly Horne; Rheault, Tara Renae
PA Smithkline Beecham Corporation, USA
SO PCT Int. Appl., 80pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | √APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2007030359 | A1 | 20070315 | WO 2006-US33616 | 20060828 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
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KG, KZ, MD, RU, TJ, TM

EP 1922316 A1 20080521 EP 2006-790054 20060828
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PRAI US 2005-714303P P √20050906
WO 2006-US33616 W 20060828

L11 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:282094 CAPLUS Full-text
DN 146:337890
TI Preparation of thiophenyl benzimidazole derivatives for treatment of conditions mediated by polo-like kinases
IN Cheung, Mui; Emmitte, Kyle Allen; Salovich, James Michael
PA Smithkline Beecham Corp., USA
SO PCT Int. Appl., 107pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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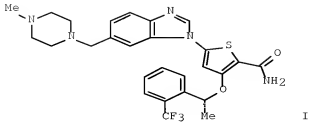
| PI WO 2007030361 | A2 | 20070315 | WO 2006-US33683 | 20060828 |
| WO 2007030361 | A3 | 20070531 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA | | | |
| AU 2006287766 | A1 | 20070315 | AU 2006-287766 | 20060828 |
| CA 2621879 | A1 | 20070315 | CA 2006-2621879 | 20060828 |
| US 20070270437 | A1 | 20071122 | US 2006-467577 | 20060828 |
| EP 1937671 | A2 | 20080702 | EP 2006-813896 | 20060828 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR | | | | |
| MX 200803173 | A | 20080318 | MX 2008-3173 | 20080306 |
| KR 2008047585 | A | 20080529 | KR 2008-707794 | 20080331 |
| PRAI US 2005-714337P | P | √20050906 | | |
| US 2006-786244P | P | 20060327 | | |
| WO 2006-US33683 | W | 20060828 | | |

GI



I

AB Eight thiophenyl benzimidazole derivs. and pharmaceutically acceptable salts and solvates thereof were prepared for the treatment of conditions mediated by polo-like kinases (PLK). For example, N-methylpiperazine was treated with Me 5-[6-(chloromethyl)-1H-benzimidazol-1-yl]-3-[[(1R)-1-[2-(trifluoromethyl)phenyl]ethyl]oxy]thiophene-2-carboxylate (preparation given) at 60 °C for 18 h in dioxane to give an intermediate which was further reacted with ammonia in MeOH at 80 °C for 40 h in a sealed flask to give I as a final product. I showed superior enzyme and cell potency in PLK1 enzyme assay and methylene blue cell proliferation assay in multiple cell lines. I also had superior protein binding in human serum by equilibrium dialysis assay. On the other hand, I showed good solubility in 0.05 M pH 7.4 phosphate buffer.

√L11 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:181791 CAPLUS Full-text

DN 146:414432

TI In vitro biological activity of a novel small-molecule inhibitor of polo-like kinase 1

AU Lansing, Timothy J.; McConnell, Randy T.; Duckett, Derek R.; Spehar, Glenn M.; Knick, Victoria B.; Hassler, Daniel F.; Noro, Nobuhiro; Furuta, Masaaki; Emmitte, Kyle A.; Gilmer, Tona M.; Mook, Robert A., Jr.; Cheung, Mui

CS Oncology Biology, GlaxoSmithKline, Research Triangle Park, NC, USA

SO Molecular Cancer Therapeutics √ (2007), 6(2), 450-459
CODEN: MCTOCF; ISSN: 1535-7163

PB American Association for Cancer Research

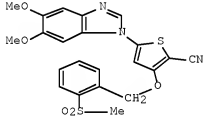
DT Journal

LA English

AB Polo-like kinase 1 (PLK1) plays key roles in the regulation of mitotic progression, including mitotic entry, spindle formation, chromosome segregation, and cytokinesis. PLK1 expression and activity are strongly linked to proliferating cells. Many studies have shown that PLK1 expression is elevated in a variety of tumors, and high expression often correlates with poor prognosis. Using a variety of methods, including small-mol. inhibition of PLK1 function and/or activity, apoptosis in cancer cell lines, cell cycle arrest in normal cell lines, and antitumor activity in vivo have been observed In the present study, the authors have examined the in vitro biol. activity of a novel and selective thiophene benzimidazole ATP-competitive inhibitor of PLK1 and PLK3 (5-(5,6-dimethoxy-1H-benzimidazol-1-yl)-3-{[2-(trifluoromethyl)-benzyl]oxy}thiophene-2-carboxamide, called compound 1). Compound 1 has low nanomolar activity against the PLK1 and PLK3 enzymes and potently inhibits the proliferation of a wide variety of tumor cell lines. In the lung adenocarcinoma cell line NCI-H460, compound 1 induces a transient G2-M arrest,

mitotic spindle defects, and a multinucleate phenotype resulting in apoptosis, whereas normal human diploid fibroblasts arrest in G2-M and show little apoptosis. The authors also describe a cellular mechanistic assay that was developed to identify potent intracellular inhibitors of PLK1. In addition to its potential as a therapeutic agent for treating cancer, compound 1 is also a useful tool mol. for further investigation of the biol. functions of PLK1 and PLK3.

L11 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:1190032 CAPLUS Full-text
DN 146:54723
TI 5-(1H-Benzimidazol-1-yl)-3-alkoxy-2-thiophenecarbonitriles as potent, selective, inhibitors of IKK-ε kinase
AU Bamborough, Paul; Christopher, John A.; Cutler, Geoffrey J.; Dickson, Marion C.; Mellor, Geoffrey W.; Morey, James V.; Patel, Champa B.; Shewchuk, Lisa M.
CS Medicines Research Centre, GlaxoSmithKline R & D, Hertfordshire, SG1 2NY, UK
SO Bioorganic & Medicinal Chemistry Letters (2006), 16(24), 6236-6240
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Ltd.
DT Journal
LA English
OS CASREACT 146:54723
GI




I

AB The identification and hit-to-lead exploration of a novel, potent and selective series of substituted benzimidazole-thiophene carbonitrile inhibitors of IKK-ε kinase is described. Compound 12e (I) was identified with an IKK-ε enzyme potency of pIC50 7.4, and has a highly encouraging wider selectivity profile, including selectivity within the IKK kinase family.

L11 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:823697 CAPLUS Full-text
DN 143:229853
TI Preparation of benzimidazolyl substituted thiophene derivatives with activity against IKK3

IN Bamborough, Paul; Morey, James Vaughan
PA Glaxo Group Limited, UK
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2005075465 | A1 | 20050818 | WO 2005-EP1432 | 20050207 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1720864 | A1 | 20061115 | EP 2005-707356 | 20050207 |
| | R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR, LV | | | | |
| | JP 2007522142 | T | 20070809 | JP 2006-551827 | 20050207 |
| | US 20070149519 | A1 | 20070628 | US 2006-597828 | 20060809 |
| PRAI | GB 2004-2809 | A | 20040209 | | |
| | WO 2005-EP1432 | W | √20050207 | | |

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 12:40:19 ON 17 JUL 2008